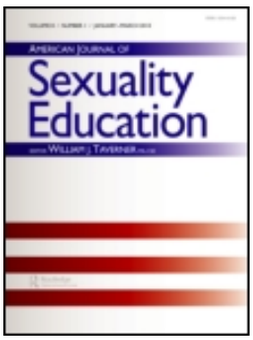

American Journal of Sexuality Education

ISSN: 1554-6128 (Print) 1554-6136 (Online) Journal homepage: http://www.tandfonline.com/loi/wajs20

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To cite this article: Shannon Criniti PhD, MPH, Betsy Crane PhD, Mark B. Woodland MS, MD, Owen C. Montgomery MD & Sandra Urdaneta Hartmann MD, PHD, MBA (2016) Perceptions of U.S. Medical Residents Regarding Amount and Usefulness of Sexual Health Instruction in Preparation for Clinical Practice, American Journal of Sexuality Education, 11:3, 161-175, DOI: 10.1080/15546128.2016.1198734

To link to this article: http://dx.doi.org/10.1080/15546128.2016.1198734

Published online: 24 Aug 2016.

AMERICAN JOURNAL OF SEXUALITY EDUCATION
2016, VOL. 11, NO. 3, 161–175
http://dx.doi.org/10.1080/15546128.2016.1198734

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RESEARCH

Perceptions of U.S. Medical Residents Regarding Amount and Usefulness of Sexual Health Instruction in Preparation for Clinical Practice

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ABSTRACT

Despite patient demand for sexual health discussions with their physicians, sexuality instruction in residency is often lacking. This exploratory quantitative study assessed the amount and usefulness of sexuality instruction received by a sample of medical residents, as well as the residents' self-perceived readiness regarding addressing sexuality issues. Data were obtained through a self-administered survey with 130 resident respondents. The majority reported receiving little/no formal sexuality instruction. Many indicated that additional sexuality instruction would be useful in their practice. Although the majority reported comfort discussing sexuality, they reported rarely/never initiating these discussions. Recommendations for changes in graduate medical education programming are provided.

KEYWORDS

Graduate medical education; human sexuality education; sexual health education; residency education

Introduction

In 2001, the U.S. Surgeon General's "Call to Action to Promote Sexual Health and Responsible Sexual Behavior" stated that physicians and other health care professionals are frequently a main point of contact for individuals with sexual health concerns or problems and consequently can influence the sexual health and behavior of their patients (U.S. Office of the Surgeon General, 2001). Multiple published studies have demonstrated patient demand for sexuality discussions with their clinicians, and most patients prefer their clinicians to initiate the conversation (Leonard & Rogers, 2002; Marwick, 1999; Wittenberg & Gerber, 2009).

In the last 15 years, at least three national documents have affirmed the importance of sexual health as part of the overall national health agenda, including the Surgeon General's "Call to Action to Promote Sexual Health and Responsible Sexual Behavior" in 2001, the National HIV/AIDS Strategy for the United States in 2010, and the Centers for Disease Control and Prevention's (CDC) report entitled "A

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Public Health Approach for Advancing Sexual Health in the United States: Rationale and Options for Implementation" published in 2011. The overall goals include increasing healthy and responsible sexual behaviors and attitudes, increasing education and access to sexual and reproductive health services, and decreasing disease and other adverse events related to sexual behavior (U.S. Centers for Diseases Control and Prevention, 2011; U.S. Office of the Surgeon General, 2001; White House Office of National AIDS Policy, 2010). All three documents propose taking a public health approach to sexual health by emphasizing a population-based prevention and wellness approach instead of the individual-based "diagnose and treat" approach that is commonly found in medicine. A public health approach to sexual health includes evaluating the effect of environmental, social, and institutional factors that influence sexual behaviors and choices at both individual and community levels. While this framework may seem overwhelming and beyond the scope of a patient visit, it is important for medical providers to understand the complex factors that influence patient sexual behavior. Taking this comprehensive view of sexual health allows the medical provider to better understand relationships between various health problems and identify barriers to improving overall patient wellness.

In 2012, the Program in Human Sexuality at the University of Minnesota Medical School held their first summit of U.S. and Canadian medical school educators on the topic of medical education in sexual health. The summit's report contained a blueprint for incorporating sexual health into medical education (Coleman et al., 2013). The experts acknowledged that overall, sexual health education in medicine is variable and decreasing in some settings. Their broad recommendations include the need to integrate sexuality longitudinally throughout medical school and residency training and to implement a multidisciplinary, diverse, and culturally sensitive approach to sexuality education. In addition, the expert panel proposed that existing curricula, which tends to focus mainly on disease and dysfunction, expand to promote sexual function and well-being (Coleman et al., 2013). The panel suggested that sexuality education be a mandatory component of medical education that should be included and evaluated as part of medical licensing examinations.

Studies conducted on sexuality instruction in medical schools have documented the need for more training in sexuality-related content areas (Frank, Coughlin, & Elon, 2002; Malhotra, Khurshid, Hendricks, & Mann, 2008; Shindel et al., 2010; Steinauer et al., 2009; Wittenberg & Gerber, 2009). Yet very few studies have explored the quantity or effectiveness of sexuality instruction or training that occurs during residency training or whether medical residents, rather than medical students, feel comfortable discussing sexual health issues with their patients. Of the 117 residents in a recent study that focused only on family practice, internal medicine, obstetrics and gynecology (OB/GYN), and psychiatry programs at a single site, 52% reported that their program's formal curriculum on human sexuality was unsatisfactory and 66% reported no previous educational experiences in sexual problem management (Morreale, Arfken, & Balon, 2010). Residents in this study reported high levels of comfort discussing sexuality-related issues with patients; lack of time was the biggest barrier to discussing patient sexuality.

Another study of residents only evaluated instruction on female sexual function and dysfunction among 234 OB/GYN residents (Pancholy et al., 2011). OB/GYN is one of the few residency programs that require a significant amount of education related to sexual health, although 91.5% residents in that study reported having five or fewer didactic lessons on female sexual function or dysfunction. Again, confidence levels were high, with more than 80% reporting feeling confident about obtaining a sexual history. Nearly all residents reported that more lectures on those topics would increase their knowledge and confidence. Significant positive correlations were found between the number of didactic activities and the residents' knowledge and confidence related to patient sexuality ($p \leq .001$).

Other studies on medical schools have found that sexuality gets short shrift in the medical curriculum. U.S. and Canadian medical schools provide an average of 3 to 10 hours of sexuality instruction, according to Solursh et al. (2003). This study found that the overwhelming majority of medical residents receive 0 to 3 hours of sexuality instruction. Studies of medical students reported similar findings indicating that students maintained high levels of reported comfort and knowledge, despite low levels of sexuality education (Frank et al., 2002; Shindel et al., 2010).

Given these documented low levels of sexuality education in graduate medical education programs, this research focused on the perceptions of medical residents regarding the amount and usefulness of the sexuality instruction they received during their residency training.

Methods

The purpose of this exploratory quantitative study was to assess medical residents' perceptions of the quantity and effectiveness of sexuality instruction in their residency education programs as well as to explore the relationship between the sexuality instruction residents receive and their knowledge, comfort, and frequency of communications about patient sexuality issues. The study had five research questions:

1. What are the perceptions of medical residents regarding the quantity and effectiveness of sexuality instruction received in their residency program?
2. How comfortable did residents feel discussing sexuality issues with their patients?
3. How often did residents discuss sexuality issues with their patients?
4. Did residents feel they had the knowledge to address their patients' sexuality issues?
5. Did residents feel that sexuality instruction was relevant to their clinical practice?

The participants reported their knowledge and comfort when discussing issues related to sexuality with patients, as well as their perception of the relevance of sexuality issues during their clinical interactions with patients.

Instrument

The study used a written survey to obtain cross-sectional descriptive data on the sexuality instruction received by a sample of graduate medical students. The 29-question survey was adapted from surveys piloted in two previous studies that assessed sexuality education, knowledge, and comfort among health professionals (Crane, Bazarsky, Criniti, & Miller, 2011; Davis, 2010). The sexuality topics included in the previous surveys were reviewed and discussed by the authors to decide on a final topic list for this study. An expert panel of physicians and sexologists reviewed the survey instrument for content and format. They found it to have satisfactory face validity. The survey was also reviewed by a biostatistician and was found to be satisfactory in terms of appropriateness of data collection, including question formulation and format, and response choices.

Participants were instructed to respond to the questions regarding their formal education on the topic of human sexuality as part of their graduate residency education. They were also instructed to define sexuality broadly, including but not limited to patients' sexual behaviors and expressions, sexual orientation, gender identity, sexual function/dysfunction, and sexual health and wellness issues (e.g., reproductive history, sexually transmitted infections, sexual risk reduction techniques). Demographic questions asked the participants' gender, age, residency program, year of residency, and geographic location(s) of clinical training (Table 1). Identical surveys were completed either on paper or electronically.

Sampling

The study population was a sample of graduate medical students recruited from the clinical residency programs of a large urban private medical school in the Northeastern United States. Convenience sampling was used to invite all those in this population to participate. There were approximately 550 total residents among all residency programs in the medical school at the time of the study. Excluding

Table 1. Participant demographics ($n = 130$).

Characteristic	*N*	%
Sex		
Female	50	44.6
Male	62	55.4
Age		
26–35 years	106	89.1
36–45 years	11	9.2
Other	2	1.6
Residency year		
1	37	30.6
2	36	29.8
3	20	16.5
4	16	13.2
5	6	5

Note. Category totals do not equal 130 because some data are missing for each variable.

pathology, podiatry, and ophthalmology, the following residency programs were invited to participate:

- Anesthesiology
- Dermatology
- Emergency medicine
- Family medicine
- Internal medicine
- Neurology
- OB/GYN
- Oral and maxillofacial surgery
- Orthopedic surgery
- Psychiatry–child and adolescent
- Psychiatry–adult
- Radiation oncology
- Radiology
- Surgery–general

Procedure

After obtaining institutional review board approval, e-mails were sent to the residency directors and coordinators of the residency programs listed above, requesting permission to invite their residents to participate in the study. Two program directors did not respond to repeated e-mail invitations to participate—dermatology and orthopedic surgery—thus, those residents did not participate. All other program directors accepted the invitation to allow their residents to be approached for voluntary study participation.

Arrangements were made to attend a single resident didactic session or other educational conference for each program where a large group of residents was expected to be in attendance. After informed consent was reviewed, paper surveys were distributed to all of those present and were collected on the spot. Due to particularly low attendance when paper surveys were distributed for two programs, residents of those two programs were invited to participate via online survey.

Data analysis

Descriptive data analysis was performed; frequency distributions and means were used to report on responses to questions one at a time. For survey items that used descriptive responses on a scale (such as never, rarely, sometimes, often), answers were converted to numbers 1 through 4 so that average responses could be ranked and presented in order. The number of participants from each individual program was too small for it to be worthwhile to perform descriptive analysis on each program, so descriptive data were only presented in the aggregate.

Table 2. Participation by residency program.

Residency Program	#
Anesthesiology	10
Emergency medicine	22
Family medicine	6
Internal medicine	22
Neurology	10
Obstetrics and gynecology	13
Oral-maxillofacial surgery	5
Psychiatry-child/adolescent	6
Psychiatry-adult	5
Radiation oncology	4
Radiology	13
Surgery-general	12
Total	**128**

Note. Two respondents did not indicate their program.

Results

Of the 14 residency programs that were approached for participation, 12 accepted. Of 130 residents who completed surveys, 123 (94.6%) were completed via paper survey and 7 were completed via online survey. There were more men (55.4%) than women (44.6%), mostly between the ages of 26 and 35 (89.1%) and either in their first or second year of their residency training (60.4%). Only 15 (11.5%) reported having done part or all of their clinical training in a foreign country. Table 2 shows the number of participants from each of the 12 participating residency programs.

The majority of residents (86.3%) reported receiving some sexuality education while in medical school (i.e., undergraduate medical education). Ten percent indicated not receiving any sexuality education during medical school, and 4% could not recall. However, when asked whether they had any courses or lectures that specifically covered sexuality issues thus far in their current residency program, only about a quarter of the respondents answered affirmatively. Sixty-eight percent reported receiving no sexuality instruction during their residency thus far, while 6.3% checked "I don't know." In a separate survey item that asked about hours of human sexuality instruction participants had received during their residency, 60.9% reported 0 hours, while 22.7% reported 1 to 3 hours (Table 3).

For those who had received sexuality instruction while in the residency program, the primary methods of instruction used were lectures (77.1%), guest speakers

Table 3. Amount of sexuality instruction received during residency.

Hours of Sexuality Instruction	%
0	60.8
1–3	22.7
4–10	9.4
11–20	2.3
>20	4.7

Note. All residents who reported receiving > 20 hours were OB/GYN residents.

Table 4. Strength/efficacy of sexuality instruction during residency by topic ($n = 129$).

Sexuality Topics Listed	Combined Responses: Strong/Adequate Education	Combined Responses: Minimal/No Education
Abortion	28.9%	**71.1%**
Aging and sexuality	27.2%	**72.8%**
Anatomy/physiology	**51.6%**	48.4%
Child sexual abuse	35.9%	64.1%
Chronic illness and sexuality	19.0%	**81.0%**
Consent	35.4%	64.6%
Cultural/religious influences on sexuality	21.9%	**78.9%**
Disability (physical, mental) and sexuality	22.2%	**77.8%**
Family planning/ contraception	38.8%	61.2%
Gender identity	25.4%	**74.6%**
HIV/AIDS	**62.0%**	38.0%
Intersex patients	16.4%	**83.6%**
Legal issues in sexuality	15.5%	**84.5%**
Lesbian/gay/bisexual patients	20.9%	**79.1%**
Orgasm	9.3%	**90.7%**
Pain or discomfort related to sexual activity	30.2%	69.8%
Risk reduction counseling	35.2%	64.8%
Sexual issues in relationships	17.8%	**82.2%**
Sexual assault/trauma	34.6%	65.4%
Sexual development	31.8%	68.2%
Sexual dysfunction – female	26.4%	**73.6%**
Sexual dysfunction – male	27.1%	**72.9%**
Sexual history-taking	39.1%	60.9%
Sexual orientation	26.2%	**73.8%**
Sexual pleasure	17.2%	**82.8%**
Sexual response cycle	17.2%	**82.8%**
Sexual side effects of medications	32.3%	68.5%
STDs/STIs	**55.5%**	44.5%
Transgender patients	16.9%	**83.1%**
Variations in sexual practices	13.3%	**86.7%**

Note. Bold indicates > 50% of respondents.

(54.2%), and case studies (37.5%). Participants were given a list of 30 topics established as important in human sexuality instruction, and they were asked to rank the strength of the instruction they received on each topic as "very strong," "adequate," "minimal," or "no education on this topic" (Crane et al., 2011; Davis, 2010; see Table 4). Respondents were allowed to rate these topics regardless of whether they reported receiving sexuality instruction, and 129 (99.2%) responded.

Instruction

Only three topics had more than 50% of total residents reporting "very strong" or "adequate" instruction received as part of the residency training: HIV (62%), sexually transmitted infections (STIs; 55.5%), and anatomy/physiology (51.6%). A majority (70%) reported "minimal" or "no education" in 18 other critical human sexuality topics, which ranged from socially controversial topics like abortion (71.1%) to basic medical content such as male and female sexual dysfunction (72.9% and 73.6%). Child sex abuse, heavily emphasized in the news in recent years, was ranked by only 35.9% of the respondents as being strongly or adequately discussed thus far in their program. More than 50% of respondents reported no education on the following topics: legal issues in sexuality (50.84%),

Table 5. Perceived strength of sexuality instruction during residency by topic (Means).

Topic	Strength (Mean)
HIV	2.65
STDs/STIs	2.53
Anatomy/physiology	2.27
Family planning/contraception	2.13
Sexual history taking	2.13
Child sexual abuse	2.05
Sexual assault/trauma	2.03
Risk reduction counseling	2.02
Sexual side effects of medication	2.01
Consent	1.99
Abortion	1.98
Sexual development	1.95
Pain or discomfort related to sexual activity	1.92
Sexual dysfunction-male	1.9
Sexual dysfunction-female	1.87
Cultural/religious influences on sexuality	1.79
Sexual orientation	1.78
Disability (physical, mental) and sexuality	1.77
Lesbian/gay/bisexual patients	1.77
Aging and sexuality	1.76
Gender identity	1.76
Sexual issues in relationships	1.72
Chronic illness and sexuality	1.7
Legal issues in sexuality	1.68
Intersex patients	1.66
Sexual response cycle	1.61
Sexual pleasure	1.6
Variations in sexuality	1.58
Transgender patients	1.55
Orgasm	1.48

Note. Responses: 4 = very strong, 3 = adequate, 2 = minimal, 1 = no education on this topic.

orgasm (62%), sexual pleasure (57%), sexual response cycle (56.3%), transgender patients (55.6%), and variations in sexual practice (54.7%). Topics were also listed according to their mean ranking after Likert scale responses were converted to numerical responses: 4 = *very strong*, 3 = *adequate*, 2 = *minimal*, 1 = *no education on this topic* (see Table 5).

Clinical usefulness

Respondents were asked to rank their sexuality instruction based on clinical usefulness and application. Of the 128 (98.5%) respondents who ranked topics by their clinical usefulness and professional application, a clear majority—more than 70% of respondents—indicated that more education would be "extremely" or "somewhat" clinically useful for the following topics: HIV (81.9%), STIs (80%), sexual assault/trauma (76.6%), child sexual abuse (73.8%), sexual side effects of medications (73.2%), abortion (72.7%), sexual history taking (71.2%), and sexual anatomy/physiology (70.4%). With the sole exception of orgasm (which came in at 49.2%), more than 50% indicated that sexuality instruction on *all* of listed sexual health topics would be clinically useful. More than 30% indicated that more education on the following topics would be *extremely* useful: HIV (44.1%), STIs (37.6%), sexual assault/trauma (33.6%), child sexual

Table 6. Usefulness of sexuality instruction during residency by topic.

Topics	Usefulness (Mean)
HIV	3.12
Sexual assault/trauma	2.95
STDs/STIs	2.95
Child sexual abuse	2.89
Family planning/contraception	2.83
Anatomy/physiology	2.8
Abortion	2.79
Sexual history	2.79
Risk reduction counseling	2.76
Side effects of medication	2.75
Chronic illness and sexuality	2.69
Sexual dysfunction-female	2.69
Consent	2.68
Disability (physical, mental) and sexuality	2.66
Aging and sexuality	2.65
Legal issues	2.65
Cultural/religious influences on sexuality	2.64
Pain or discomfort related to sexual activity	2.63
Gender identity	2.62
Sexual development	2.62
Sexual issues in relationships	2.6
Sexual dysfunction-male	2.6
Intersex patients	2.59
Lesbian/gay/bisexual patients	2.59
Trans patients	2.56
Sexual orientation	2.54
Sexual pleasure	2.46
Variations in sexuality	2.46
Sexual response cycle	2.44
Orgasm	2.4

Note. Responses: 4 = extremely useful, 3 = somewhat useful, 2 = not very useful, 1 = completely useless.

abuse (32.5%), sexual side effects of medications (30.9%), and sexual history–taking (30.4%). The topics are listed in Table 6 by mean rankings after Likert scale responses were converted to numerical responses (4 = *extremely useful*, 3 = *somewhat useful*, 2 = *not very useful*, 1 = *completely useless*).

Perception of readiness

Participants were asked about the extent to which they agreed with this statement: "So far, I feel I am being prepared during my residency to address my patients' needs, problems, concerns, and overall wellness related to their sexual health." Of the 123 (94.6%) who responded, just over half agreed (n = 69; 56.1%), although only 14 (11.4%) strongly agreed, while 54 (43.9%) somewhat or strongly disagreed. There was a slight increase for the next survey item, in which 83 (67.5%) respondents somewhat or strongly agreed with the statement: "I expect that when I have completed my residency program, I will be adequately prepared to address my patients' needs, problems, concerns, and overall wellness related to their sexual health." Half of those who agreed with that statement had reported receiving 0 hours of formal sexuality instruction during their residency thus far.

Respondents were asked to rate their perceptions on communication, knowledge, comfort, and providing referrals for various patient sexuality issues. Likert

Table 7. Patient communication/knowledge/comfort: All residents.

Statements	Never	Rarely	Sometimes	Often
My patients bring up sexual health concerns during their visits.	16.9%	51.6%	26.6%	4.8%
I initiate discussion of sexual health during patient visits.	27.4%	33.9%	28.2%	10.5%
I initiate discussion of sexual desire and/or satisfaction during patient visits.	47.9%	32.5%	16.3%	3.3%
I initiate discussion of sexual response and pleasure during patient visits.	54.8%	29.0%	15.3%	0.8%
I am able to comfortably discuss my patients' sexual behavior and interests.	14.9%	20.7%	38.0%	26.4%
I am able to comfortably discuss my patients' sexual orientation and identity.	10.6%	20.3%	35.8%	33.3%
I have the knowledge necessary to answer my patients' questions about sexuality.	11.4%	19.5%	51.2%	17.9%
I refer patients for psychological assessment and/or treatment for sexuality concerns (may include couples counseling and sex therapy).	61.5%	31.1%	7.4%	0.0%
I refer patients to physical therapy for sexual pain disorders.	70.5%	25.4%	4.1%	0.0%

scale responses were *never, rarely, sometimes*, and *often*. As shown in Table 7, few respondents indicated that they or their patients regularly initiated sexual discussions, although most expressed some degree of comfort or skill in doing so. For example, 31.4% indicated that their patients bring up sexual history or concerns and 38.7% indicated that they initiated sexual health discussions. Yet, 64.4% said they were comfortable talking about sexual matters with their patients. In response to a survey question asking about perceived barriers to discussing sexual issues with their patients (selecting more than one answer if applicable), the top reason was lack of time (64.2%), while lack of knowledge/expertise was the second most common response (33.3%).

Discussion

The importance of sexual health education is recognized by many institutions globally. This quantitative, cross-sectional survey design study measured perceptions of sexuality instruction received by residents in graduate medical education programs of an urban medical school. It also assessed residents' perceptions of instruction received, including its usefulness as well as their perceptions of their readiness to address sexual health concerns in their clinical practice.

Similar to previous research studies, the findings indicated a low level of formal sexuality instruction for this sample of residents. However, residents appeared to feel that whatever sexuality instruction they received had been effective. When residents did receive sexuality instruction, the three topics most often taught were HIV, STIs, and anatomy/physiology. Overall, most respondents felt they had the knowledge to address their patients' sexuality issues at least sometimes. However, one-third reported that lack of knowledge was a barrier to discussing patient sexuality. These residents did see sexuality education as relevant to their clinical

practice. With the exception of one topic, more than 50% indicated that sexuality instruction on *all* of the other sexual health topics listed in the survey would be clinically useful. These results echoed some of the findings of Pancholy et al. (2011) and Morreale et al. (2010) who found that residents reported strong confidence in addressing patient sexual health issues, were interested in additional sexual health education, and reported time as the biggest barrier to communicating with patients about sexuality.

Limitations

High levels of reported knowledge and comfort—as seen in other studies of similar populations—could reflect a social desirability bias. Physicians in training may want to be seen as knowledgeable and comfortable talking about anything with their patients, including sexuality. All data obtained in this study were based on participant self-reports, which may or may not match the reality of how much sexuality instruction was presented in each residency program or how often the participants actually discussed sexuality with their patients. The perspectives of residency directors were not included in this study, nor did this study include a review of the educational conferences of the programs to assess for any formal sexuality instruction.

A limitation to this study was the use of a convenience sampling method at only one medical school, which may limit the external validity of the study. The number of participants from residency programs varied from 4 to 22 residents. However, the size of each individual program also varied widely.

Nonresponse bias is difficult to ascertain. Only five of the paper surveys were returned indicating a refusal to participate, for a 96% response rate for the paper surveys. For the two programs (internal medicine and adult psychiatry) that were invited to complete the survey via an e-mailed online link, there was a very large nonresponse rate. This is difficult to interpret because there is no way to know how many residents received or opened the e-mail.

The majority of participants (60.4%) were in their first two years of residency, while 16.5% were third-years, 13.2% were fourth-years, and 5% were fifth-years (the length of residency programs varies from 3 to 5 years depending on specialty). Thus, it is possible that the senior residents obtained more sexuality instruction secondary to their length of time in their residency program but were not well represented in this study.

In addition, differences among the amounts of sexuality instruction provided in individual residency specialties would be expected. However, due to the small numbers of participants within each of the 12 programs, only aggregate results were given.

Finally, the survey was designed to capture information about formal instruction in the classroom, rather than hands-on clinical learning that happens in residency programs during patient interactions and debriefings with clinical supervisors. It is possible that education about patient sexuality may have occurred in these situations

that was not adequately captured by the survey instrument and is thus not reflected in the findings of this study.

Despite these limitations, these data are consistent with other findings in the literature that demonstrate a lack of sexuality instruction in medical education.

Recommendations for sexual health education in medicine

Based on these findings, previous research, and findings of the CDC, Surgeon General, and the AIDS Policy Office, it is clear that a national focus on sexual health education in medicine is needed. The best way to achieve education in these three areas is to use a variety of teaching methods both in the classroom and during hands-on trainings in clinical settings. For example, instruction through didactic sessions and readings may be augmented by case studies and individual research projects. Readiness may be addressed by increasing comfort talking about sexuality through small group discussions, guest speakers, or Sexual Attitude Reassessments (SARs). Skills may be practiced via role-playing, standardized patients, and direct patient contact with clinical supervision. While knowledge and skills are typical components of instruction on most topics of education in medicine, attitudes are also an important component of sexuality education. Addressing topics such as cultural differences, gender, race, ethnicity, socioeconomic status, religion/spirituality, and sexual orientation is a vital part of sexuality education necessary for physicians to provide respectful medical care to all their patients.

An element of the education process that may be specific to sexuality is the process of desensitization, such as through the use of the SAR. This process guides individuals through introspection and discussion to identify and overcome their biases and inhibitions regarding sexuality so that they can address patient sexuality issues without exhibiting judgmental or extreme reactions (Stayton, 1998).

Instruction about sexual health in medicine needs to be incorporated throughout medical school and residency training, with designated sexuality courses and clinical blocks as well as sexuality education in relation to other patient medical issues. For example, a case study on a diabetic or clinically depressed patient could include a review of potential sexual side effects of medications. A sexual history role-play could include a patient with a history of childhood sexual abuse. Standardized patients should regularly include discussion of the patient's sexual orientation and sexual behaviors, with an exploration of how that would affect conducting a medical and sexual history or might be relevant to the diagnosis and treatment plan. Standardized patients can also include transgender and gender-fluid individuals so physicians can deepen their understanding of gender identity and practice using language that will be inclusive and respectful. Gynecological teaching assistants—standardized patients who teach residents how to perform genital exams sensitively—should be utilized to give physicians in training real-life opportunities to practice appropriate touch during exams.

A patient-centered, lifetime approach to sexual health care would help clinicians to identify events through their patient's life where conversations about sexual

health would be appropriate. These events may include but are not limited to new romantic/sexual relationships; initiation or change of contraceptive method; diagnosis of new medical condition or changes to existing condition; new medications; or hormonal changes due to pregnancy, breastfeeding, menopause, or aging. Framing patient–provider communication from a sexual wellness model, rather than the standard medical model that focuses on disease and dysfunction, encourages conversations about sexuality to be normalized and to occur throughout the lifespan as well as integrate the relational and emotional aspects of sexuality.

A comprehensive sexual health curriculum for medical school has been developed by the Center for Excellence in Sexual Health at Morehouse School of Medicine, which includes topics such as sexuality across the lifespan, safer sex, sex and disability, sexual violence, queer health, and many other sexual health themes relevant to the practice of medicine ("Morehouse School of Medicine," 2015).

For consistent ongoing sexual health education to be provided to all future physicians, a core set of sexual health knowledge and skill competencies should be established so that there is consistency for all physicians finishing medical school. The American Medical Student Association (AMSA) has proposed competencies for knowledge, skills, and attitudes in their Sexual Health Scholars program (American Medical Students Association, n.d.). It is important for a sexual health curriculum to be standardized and then evaluated on licensing exams so that all medical students would be certain to receive the same basic instruction. In terms of residency, the requirements would need to remain tailored for each specialty. However, the current Accreditation Council for Graduate Medical Education (ACGME) requirements for individual residency programs are vague, and there is an unfortunate trend in recent years of programs removing or reducing sexuality-related requirements (Criniti, Andelloux, Woodland, Montgomery, & Urdaneta Hartmann, 2014).

Like the competencies listed by AMSA, residency requirements should list specific skills and knowledge objectives for each sexuality topic relevant to that program so that requirements are outcome-oriented. Similar to the way objectives are written for health programs, residency requirements could be phrased as: "At the successful completion of this residency program, residents should be able to … [screen for sexual assault, describe the sexual response cycle, etc.]." Physicians should be able to conduct a sexual history and initiate inquiries related to sexual function at appropriate times in their patient's life. For example, a radiation oncology resident should be able to list the sexual side effects of cancer treatments and list common problems regarding sexual function before and after medication changes, radiation, chemotherapy, or surgery. The ACGME should convene workgroups to analyze the sexuality requirements of each residency program, with the goal of making them patient-centered and outcome-oriented.

This exploratory descriptive study found that more than half of participants across 12 residency programs indicated that more sexuality instruction during their graduate medical school training would be clinically useful. This, along with findings from other studies on sexuality education in medicine, strengthens the

argument for additional sexual health information and skill building to be integrated into graduate medical training. Future research on this topic should be conducted with a larger sample of participants across multiple medical schools to allow for comparative analysis.

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